

**REMARKS**

As an initial matter, the Applicant thanks the Examiner Cang Thai for the Office Action dated March 22, 2006 (the "Office Action"). In the Office Actions, Claims 1, 3-4, and 9-21 were rejected pursuant to 35 USC 101. Claims 4 and 9 were also rejected pursuant to the second paragraph of 35 USC 112. Applicant hereby traverses all rejections with the Claims as currently amended.

**I. Inventive Concepts and Terminology**

Before addressing the substance of the assertions in the Office Action, it may be helpful to review certain terminology as defined in the Specification.

**A. Entity-Constituent relationships**

The invention focuses on the relationships between an entity and a constituent. Numerous examples of different relationships are provided in the Specification:

<b><u>Relationship</u></b>	<b><u>Specification Citation</u></b>
company-customer	[0003]
organization-member	[0044]
employer-employee	[0046], [0047]
company-supplier	[0046], [0047]
company-investor	[0046], [0047]
airline-passenger	[0047]
hotel chain-guests	[0047]

Given the specific examples in the Specification, someone skilled in the art would identify that an "entity" is potentially any individual or organization with relationships to others. In many contexts, an "entity" is a business, but other types of organizations such as non-profit groups, educational institutions, professional associations, and any other type of organization that can have members can constitute an "entity" with respect to the Applicant's claims.

The term “constituent” is similarly comprehensive. Those skilled in the art would identify that a “constituent” could be a customer, a student, or any other type of member to an organization.

Although the terms “entity” and “constituent” include numerous examples outside the company-client context, the discussion below will focus on examples involving a “company” and a “customer”.

## **B. Franchise Value**

The purpose and utility of the invention is to provide companies with means for “improving franchise value.” See [0045]. “Franchise value (relative to the customer constituency) is simply the product of the number of relationships (e.g. number of customers), the average relationship profitability (per year), and the average duration of relationships (in years, as an example).” See [0045]. Thus, in the business context, maximizing franchise value is synonymous with maximizing the value of a customer relationships, way in which to increase profits.

The ability to enhance the value of customer relationships is a valuable utility because in a commercial context it addresses the fundamental goal of a for-profit enterprise--making a profit. In the aggregate, a company makes a profit when the aggregate value of the benefits provided by a company to its customers are greater than the aggregate value of the costs incurred to provide those benefits. The invention takes this general principal and applies it in ways that are both novel and non-obvious. From the perspective of a company, compensation for the providing of benefits is a “get” and the costs associated providing those benefits is a “give.” The invention enhances the ability of entities and constituents to engage in mutually beneficial exchanges by breaking down “gives” and “gets” into atomic-level units that can be then be associated with a numerical valuation. What an entity “gives” is referred to as an “exchange element” and what the entity receives is a “behavior” from the constituent.

## **C. Exchange Elements and Behaviors**

The inventive methodology enhances the value of a relationship by facilitating win-win transactions. One way the invention can be used to achieve this benefit by monetizing behaviors (e.g. attribute numerical values to certain behaviors) that are not associated with a selling price. Another way the invention can be used to achieve this benefit is by breaking down single transactions into smaller atomic elements and

assigning a valuation to each of the different components. Paragraph [0071] of the Specification provides some insights of how the atomic units of exchange elements and behaviors can be identified and associated with numerical values in the context of an airline-passenger relationship.

Shown in block 100 is the value exchange quantification component in which the airline identifies and assigns a value to specific behaviors of the passenger in block 302 and identifies and assigns a value to investments or exchange elements in block 304. As shown in block 304 exchange elements include trip and flight planning, baggage handling, airline club use, etc. Shown in block 102 is the mindset causal modeling component in which the airline determines the experience of the passenger with respect to each of the exchange elements in block 306, determines the mindset of the passenger as a result of the experiences in block 308 and determines the resulting behaviors of the passenger in block 310. As shown in block 310, passenger behaviors include flying that airline exclusively, referring friends to the airline, paying full fare, etc. In block 312, the airline can make adjustments to the exchange elements to affect the experiences and ultimately the resulting behaviors of the passenger. For example, if it were found that use of the airline club during layovers caused passengers to fly exclusively with the airline or to pay a higher fare, the airline could increase the availability of the club to more passengers, thus causing more passengers to tend to use the airline exclusively and/or to pay higher fares.

In the above example, numerical values are assigned by the airline to airline "gets" such as referrals, exclusivity, paying a higher fare, etc. Similarly, numerical values are assigned by the airline to airline "gives" such as trip and flight planning, baggage handling, airline club use, etc. Given these valuations, constituents can be presented with a larger menu of opportunities to maintain and expand a relationship with the entity.

Paragraph [0048] provides an additional discussion of the "exchange elements" as entity "gives" and "behaviors" as company gets.

At the heart of this invention is the aspect of intentional investments, a scientific approach to altering the "give" (company investments) and the "get" (constituent behaviors). One can think of this intentional investment process as balancing the "give" and the "get." In order to do this several key components of the invention are required as capabilities in an organization. At a high level, one must be

able to define and describe a mutually exclusive and collectively exhaustive set of "gives" (investments in the form of exchange elements) and "gets" (customer behaviors). In the value web point of view the "give" extends beyond the company to the extended enterprise. The capabilities required to perform this give and get analysis and definition do not typically exist in organizations, in fact, the capabilities are rare even at this point in the transformation.

The Applicant's invention can perform useful, concrete, new, and non-obvious functionality by facilitating "win-win" transactions merely by implementing the "value exchange quantification component" aspects of the invention that are discussed above. See [0004]. The quantification component referred to in [0004] can include process steps such as steps identifying exchange elements (step 110), assigning numerical values to the exchange elements (step 114), identifying behaviors (step 118), associating numerical values to the behaviors (step 122), and passively letting customers and other constituents navigate the options available to them on an atomic level.

However, Applicant's Claims currently include additional functionality relating to "a mindset causal modeling component" and "a normative process architecture that serves as a continuous improvement process that links the value exchange quantification component and the mindset causal modeling component." See [0004]. In other words, the Applicant's invention can include an iterative process/feedback loop to identify mutually beneficial investments of resources. An important aspect of the "improvement cycle process/loop" for "optimizing the value exchange between the entity and the constituent population" is the concept of a "gap." See [0054].

#### **D. Gaps**

There are several types of "gaps" identified in the Specification. Paragraph [0058] of the Specification identifies "five potential types of gaps":

(1) a fit gap--a gap between what is offered by the entity and what is needed/wanted/expected by the constituent; (2) a delivery gap--a gap between what is promised by the entity and what is delivered to the constituent; (3) a design or investment gap--a gap between what is designed (in terms of investments in constituents) and the aim of the constituent; (4) an enablement gap--a gap between what the expectations of the constituents and the technological ability

of the entity to deliver to the expectations; and (5) a fairness or value gap--a gap between the value exchanged, i.e., what the constituent gives to the entity compared to what the constituent receives from the entity.

In particular, the claims refer to identifying a "value exchange gap." The purpose of identifying such a gap is to "adjust specific exchange elements to cause a corresponding adjustment in specific behaviors" to facilitate an increase in the value contributed by the constituent. In other words, the numerical values associated with the exchange elements and behaviors can be adjusted over time and the atomic units of exchange elements/behaviors can be added, updated, or deleted as entities proceed with the continuous process of enhancing the value of their relationships.

The inventive methodology uses the concept of a value exchange gap to identify ways in which to expand the exchange of exchange elements and behaviors making up the relationship between the entity and the constituent. By assigning valuations at the atomic level of an exchange element or a behavior, it is possible for the parties to identify ways in which to benefit the other party at relatively minimal or even zero cost to the party. For example, in the context of the airline example, a referral to an airline by a passenger may be highly desired by the airline, while not constituting a significant burden on the passenger. Similarly, airline club usage can be provided by an airline at relatively minimal cost in comparison to the benefit of a passenger who always pays full fare.

## **II. 35 USC 101**

In rejecting Applicant's Claims pursuant to 35 USC 101, the Office Action the following issues: (a) Utility/Usefulness; (b) Concreteness; and (c) Tangibility. Each of these bases for rejection is addressed below. The underlying logic of all three bases of rejection is "subjectivity" so the issue of subjectivity is also addressed specifically below.

For the purpose of addressing the various 35 USC 101 arguments, the Applicant makes reference to the following prominent examples of "business method" patents. It is the contention of the Applicant that as applied to Applicant's Claims, the following issued patents (the "Issued Patents") would be invalid due to 35 USC 101. However, in contrast to the logic asserted in the Office Action, the patents listed below have each been found to satisfy the requirements of 35 USC 101.

<u>U.S. Patent #</u>	<u>Title</u>	<u>First Listed Inventor</u>	<u>Comments/Notes</u>
7,065,495	Method and apparatus for preventing oligopoly collusion	Lundgren	<i>In Re Lundgren</i> , Appeal No. 2003-2088 Application 08/093,516. HEARD: April 20, 2004.
5,193,056	Data processing system for hub and spoke financial services configuration	Boes	<i>State Street Bank &amp; Trust Co. v. Signature Financial Group Inc.</i> , 149 F. 3d 1368, 47 USPQ2d 1596 (Fed. Cir. 1998).
5,333,184	Call message recording for telephone systems	Doherty	<i>AT&amp;T Corp. v. Excel Communications, Inc.</i> , 172 F.3d 1352, 50 USPQ2d 1447 (Fed Cir. 1999).

### **A. Subjectivity**

The Office Action asserts that Applicant's Claims are subjective because "for a single situation, there could be different results based on the subjective determination of the user." It is true that the invention relies on certain inputs to in order to implement the claimed invention. It is also true that different users of the invention will implement the invention using different data. However, the fact that the invention can be implemented in different ways does not render the Claims "subjective." The only alternative to a claim incapable of being implemented in more than one way would be a claim incapable of covering more than a single embodiment. However, every "genus" claim can be practiced in more than one manner based on the configuring parameters used by the person implementing the invention. Thus, the logic of the Office Action suggests that all genus claims should be rejected based on "subjectivity."

The analysis below examines each of the process steps in detail. Each of the claimed process steps satisfies the same level of "objectivity" as the Issue Patents.

#### **1. Several of the process steps are repeatable calculations**

Referring to Claim 1 as an example, several of the process steps are straight forward calculations in which given a certain set of inputs, a certain numerical result is clearly the correct answer. Three of the steps in Claim 1 are straight-forward mathematical operations:

- summing the exchange element cost to the entity for said constituent population to obtain a total exchange element cost, and storing the total exchange element cost in said at least one memory [e.g. addition]

- summing the value of the behaviors associated with the constituent population to obtain a total behavior value, and storing the total behavior value in said at least one memory [e.g. addition]
- quantifying the value contributed to said entity by said constituent population by subtracting the total exchange element cost from the total behavior value [e.g. subtraction]

Given the same set of inputs, any practitioner would derive the same outputs from the above steps. Thus, such process steps are clearly not subjective and the focus can then be placed in the remaining process steps.

## 2. Identifying data elements is not a “subjective” step

Several of the process steps in Applicant's Claim 1 involve identifying data elements that will later be associated with various data values.

- identifying a number of exchange elements which are offered to the constituent population by the entity;
- identifying a number of behaviors of said constituent population;

It is true that different contexts will call for different configurations of exchange elements and behaviors. It is also true that two individuals working for the same entity and looking at the same data could identify the exchange elements and the behaviors differently. However, the same is true for the Issued Patents.

- **choosing an absolute performance standard from a set of absolute performance standards** (Claim 1 – Lundgren). *Different practitioners can define different sets of absolute performance standards. Even if presented with the same list of performance standards, different practitioners can pick a different individual absolute performance standard (e.g. same inputs generating different result). The term “choosing” would be said to be inherently “subjective” under the reasoning of the Office Action, and yet the claim was found to be allowable.*
- **retrieval from the storage medium of any previously input data regarding daily incremental income** (Claim 4- Boes). *Different implementations of the invention may use a variety of different types of input data. Moreover, there is nothing in the claim to suggest that the same user must provide input data in manner that is consistent with respect to format or type.*
- **retrieving from the storage medium the data regarding all daily activity for the portfolio and each of the funds** (Claim 6 – Boes). *Different practitioners can select different types of data to constitute “daily activity” which will result in different types of data being stored (e.g. a different result based on implementation chosen by practitioner).*

- **providing, in said message record, an indication which has a particular value when the particular interexchange carrier over which said call was carried is the PIC for said terminating subscriber** (Claim 12 – Doherty). *Different practitioners will use different types of variables to serve as an indication—it could be binary flag, string, number, text, etc.*

A cursory review of the PTO database of issued patents reveals that a voluminous number of issued patents involve at least one process step in which the practitioner of the invention is to identify data elements. If desired, Applicant can provide additional examples.

### **3. Assigning a value to a data element is not “subjective”**

Several of the process steps in Applicant’s Claim 1 involve associating a value to a data element:

- associating a cost to the entity with each of said exchange elements in the at least one memory
- associating a value with each of said behaviors in said at least one memory, wherein at least one said value is not a monetary amount to be paid by the constituent as a price in exchange for receiving one or more exchange elements from said entity

In each of the process steps above, different practitioners of the invention may submit different values. It is even possible for an individual practitioner to change their mind with respect to what would constitute a desirable “value” for a particular circumstance. However, this is not a basis for rejecting Applicant’s Claims on the bases of “subjectivity.” The Issued Patents each include valuation steps that the Office Action would consider to be “subjective.”

- **determining a performance measure for each of said comparison firms for said sampling period** (Claim 12 – Lundgren). *Different practitioners can use a different a type of performance measure, and can even “calculate” the same performance measure in a variety of different ways.*
- **allowing the pricing date data to be corrected if necessary** (Claim 5- Boes). *Application of the reasoning in the Office Action would suggest that the phrase “if necessary” is subjective because different practitioners may disagree as when correction is necessary.*
- **wherein said message record generating step includes the step of rating said each call to determine a rated charge therefor and wherein said billing step includes billing an amount for ones of said calls which is less than said rated charge if the indications in the message records for such calls**



have said particular value. (Claim 22 – Doherty). *The combination of “indications” and “particular value” can be configured differently for the exact same circumstance.*

#### **4. Using data to modify other data is not subjective**

The remaining process steps included in Claim 1 involve using the value associated with a data element to influence the value associated with a different data element. These process steps do not necessarily involve 1:1 ratio in terms of inputs to outputs, meaning that the invention can be implemented differently so that different implementations of the invention could potentially generate different outputs from the same inputs.

- identifying a value exchange gap relating to at least one constituent by accessing data stored in said at least one memory
- receiving a feedback from at least one constituent that reduces the value exchange gap for the constituent providing the received feedback by adding at least one of: (a) at least one behavior; and (b) at least one exchange element between said at least one constituent and the entity

Both of the process steps above involve using a data element to modify, influence, or calculate another data element. There are many different ways that someone skilled in the art could perform these steps given the disclosure provided in the specification. However, the fact that the Applicant's claims are broader than single embodiment or are otherwise cannot be reduced to a single mathematical formula does not mean that the claims can be rejected on the basis of subjectivity. To the contrary, a search of the USPTO database on September 22, 2006 revealed that 15,714 issued patents include some derivative of the word “influence” within the claims of the patent. The word “influence” cannot be reduced to 1:1 to ratio of input to output. Different embodiments of an invention can be configured to give different weight to one or more inputs that are relevant to a particular output. In those 15,714 patents, there are claims that for “a single situation, there could be different results based on the subjective determination of the user” or practitioner. However, such “subjectivity” is not grounds for rejection of the patent claim.

There are numerous examples in the Issued Patents of process steps in which the same configuration of inputs could result in a wide variety of outputs, depending on the particular implementation of the invention.

- **transferring compensation to said manager, said transferred compensation having a value related to said managerial compensation amount** (Claim 1 – Lundgren). *The claim does not specify how the managerial compensation influences or is otherwise used to calculate the transferred compensation, and yet the claim was found to satisfy the requirements of 101.*
- **measuring an effort indicator related to an effort exerted by said manager in exercising administrative control over said primary firm during said sampling period and wherein the value of said transferred compensation is additionally related to the magnitude of said effort indicator** (Claim 4 – Lundgren). *The claim does not specify what the relationship is between the transferred compensation and the effort indicator. Different practitioners of the invention may implement different degrees of relatedness.*
- **determining a weighted performance comparison base based on said set of comparison firm performance measures** (Claim 1 – Lundgren). *The phrase “based on” is similar to “influence” or “related” – it does not specify a particular relationship or method of calculation.*

In summary, Applicant's Claims are no more “subjective” than the Issued Patents or the 15, 714 patents that include some derivation of the word “influence” in one or more claims.

## **B. Usefulness/Utility**

The Applicant's invention provides several advantages to its users. The invention can provide:

- “a method for optimizing a value exchange between a revenue-generating entity and an associated constituent population.” See [0002].
- “the capability for intentionally allocating or reallocating investments in the exchanges of value between a revenue generating entity and its key constituent populations and sub-populations.”

The bottom line of the invention is to enhance the “bottom line” of the entities that practice the invention. By atomizing valuations, more exchanges can occur between an entity and its constituents. By implementing the invention in an iterative manner, an entity can better prioritize its investments and energies.

The utility test pursuant to 35 USC 101 is a low threshold, and the Applicant's Claims easily satisfy that threshold.

### C. Concreteness

The Office Action asserts that the Claims are not concrete as is evidenced by a lack of repeatability (e.g. subjectivity) and/or the need for undue experimentation. The issue of subjectivity is addressed above. The fact that a variety of different processing rules can be incorporated in a particular implementation of the invention does not mean that the Applicant's Claims lack concreteness.

With respect to undue experimentation, the fact that the invention can be implemented with a focus on "continuous improvement" does not mean that the Claims require undue experimentation. The setting of numerical values for the exchange elements and the behaviors is a necessary configuration activity, but it does not constitute undue experimentation. Rather, it requires the application of reasoned judgment on the part of the person implementing the invention. For example, in the airline-passenger example in [0071], the practitioner of the invention will need to determine the value of a passenger who agrees to fly exclusively on a particular airline. The practitioner need not conduct an experiment to come up with some initially suitable number. The fact that the invention can be used over time to identify a more desirable number does not mean that the Claims require undue experimentation. In the language of the Office Action, these concepts are understood by a "person in the industry."

### D. Tangibility

The issue with respect to tangibility is roughly synonymous with the issue of subjectivity. A thorough discussion of the subjectivity issue is provided above. The Office Action does raise certain questions relating specifically to the use of an "arbitrary" (e.g. user-defined) threshold value. Notably, Claim 1 does not include any type of threshold value, so this cannot be a factor in the rejection of Claim 1. Nonetheless, Applicant contends that such threshold values are not uncommon and are not objectionable.

For example claim 5 in Lundgren specifically contradicts the logic regarding "an academic test score of 95." Claim 5 in Lundgren provides for "**assigning a level of quality to said brand-name commodity.**" *This is an arbitrary value without any inherent meaning. Some implementations may rate quality on a scale of 1 to 10, 10*

*being good and 1 being bad. Others may use a scale of 1 to 5, with 1 being the best and 5 being poor. An A- F scale could be used such as is common in academic contexts or the top rating could be AAA as it is in the bond market. Numerous other techniques could also be used. While there is no inherent meaning to a raw number or metric in the "real word" out of context, there is such a meaning when such numbers and metrics are implemented in a context of particular setting..*

Different practitioners may invoke different accounting treatment to determine metrics such as incremental cost, incremental profit, sunk costs, fixed costs, etc. Different accountants and economists can easily come up with different assessments and different threshold values. However, that fact does not constitute grounds for rejecting Applicant's Claims.

### **III. Rejection of Claims 4 and 9 pursuant to 35 USC 112**

Claims 4 and 9 were rejected pursuant to 35 USC 112 second paragraph for alleged ambiguities relating to mindset data. As indicated in the Specification, mindset data can come from a wide variety of sources. Constituents can explicitly "input" data in the form of a questionnaire, entities can "input" data obtained from constituent interviews, and a wide variety of different data mining tools from actual interactions between entities and constituents (e.g. empirical data) can be used to formulate mindset data by those skilled in the art. See [0053], and [0056] – [0058].

Thus, the use of mindset data in Claims 4 and 9 satisfies the requirement of 35 USC 112 second paragraph.

**CONCLUSION**

The Applicant believes that Claims 1, 3-4, 9-13, and 15-21 as currently amended are in condition for allowance. The fee for a Three-Month Extension is enclosed with this paper.

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Respectfully submitted,

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By \_\_\_\_\_

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